Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2213830227
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Jim Raley Title: Environmental Professional

Signature: Jim Raley Date: 7/6/2022

email: jim.raley@dvn.com Telephone: 575-689-7597

OCD Only

Received by: Robert Hamlet Date: 7/18/2022

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Robert Hamlet Date: 7/18/2022

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

VERTEX

July 6, 2022 Vertex Project #: 22E-01896

Spill Closure Report: Ross Draw Unit #047H
Section 22, Township 26 South, Range 30 East
API: 30-015-41581
County: Eddy
Incident Report: nAPP2213830227

Prepared For: WPX Energy Permian, LLC
5315 Buena Vista Drive
Carlsbad, New Mexico 88220

New Mexico Oil Conservation Division – District 2 – Artesia
811 South 1st Street
Artesia, New Mexico 88210

WPX Energy Permian, LLC (WPX) retained Vertex Resource Services Inc. (Vertex) to conduct a spill assessment for a release of produced water caused by a mechanical seal failure on the water transfer pump at Ross Draw Unit #047H, API 30-015-41581, Incident nAPP2213830227 (hereafter referred to as "RDU 47"). WPX provided spill notification to the New Mexico Oil Conservation District (NMOCD) District 2, via submission of an initial C-141 Release Notification (Attachment 1). This letter provides a description of the spill assessment and includes a request for spill closure. The spill area is located at N 32.0347519, W -103.8757782.

Background

RDU 47 is located approximately 17.41 miles southeast of Malaga, New Mexico (Google Inc., 2022). The legal location for the site is Section 22, Township 26 South and Range 30 East in Eddy County, New Mexico. The spill area is located on Bureau of Land Management (BLM) property.

The Geological Map of New Mexico (New Mexico Bureau of Geology and Mineral Resources, 2022) indicates the site's surface geology is comprised primarily of Qep - Eolian and piedmont deposits (Holocene to middle Pleistocene) and is characterized as eolian sands and piedmont-slope deposits. The Natural Resources Conservation Service *Web Soil Survey* characterizes the predominant soil texture on the site as Upton-Simona complex. It tends to be well drained with high runoff and very low available moisture levels in the soil profile (United States Department of Agriculture, Natural Resources Conservation Service, 2022).

The surrounding landscape is associated with ridges and fans at elevations of 2,000 to 5,700 feet above sea level. The climate is semi-arid, with annual precipitation ranging between 6 to 14 inches. Historically, the plant community has a grassland aspect, dominated by grasses with shrubs. Black grama is dominant with a mixture of blue grama and sideoats grama, mesquite and creosotebush. Mesquite, whitethorn, creosote, and lovegrass are the greatest threat to dominate this site in the long term after disturbance.

There is no surface water located at RDU 47. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 New Mexico Administrative Code (NMAC), is the Pecos River located approximately 5.29 miles southwest of the site (United States Fish and Wildlife Service, 2022). There are no continuously flowing watercourses or significant watercourses, lakebeds, sinkholes, playa lakes, or other critical water or community features as outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC (New Mexico Oil Conservation Division, 2018).

Incident Description

The spill occurred on May 15, 2022, due to mechanical seal failure on the water transfer pump. The spill was reported on May 18, 2022, and involved the release of approximately 20 barrels (bbl.) of produced water into the lined containment of the tank battery. Approximately 20 bbl. of free fluid was removed during initial spill clean-up. The NMOCD C-141 Report: nAPP2213830227 is included in Attachment 1. The Daily Field Report (DFRs) and site photographs are included in Attachment 2.

Closure Criteria Determination

The depth to groundwater was determined using information from the Office of the State Engineers Water Rights Database. A 0.5-mile search radius was used to determine groundwater depth. The closest recorded depth to groundwater was determined to be 125 feet below ground surface (bgs) and 1.31 miles from the site (New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System, 2022a and 2022b). Documentation used in Closure Criteria Determination research is included in Attachment 3.

Closure Criteria Worksheet			
Site Name: Ross Draw Unit #047H			
Spill Coordinates:		**X: 32.0347519**	**Y: -103.8757782**
Site Specific Conditions		**Value**	**Unit**
1	Depth to Groundwater	**125**	feet
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	27,925	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	28,375	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	48,229	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, **or**	17,201	feet
	ii) Within 1000 feet of any fresh water well or spring	17,201	feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	1,105	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
9	Within an unstable area (Karst Map)	Medium	Critical High Medium Low
10	Within a 100-year Floodplain	Undetermined	year
11	Soil Type	Upton-Simona	
12	Ecological Classification	Shallow	
13	Geology	Qep	
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	<50'	<50' 51-100' >100'

Based on data included in the closure criteria determination worksheet, the release at RDU 47 would not be subject to the requirements of Paragraph (4) of Subsection C of 19.15.29.12 NMAC and the closure criteria for the site would be determined to be associated with the following constituent concentration limits based on depth to groundwater. As the nearest groundwater well is more than 0.5-mile from the release site, the depth to groundwater at RDU 47 cannot be accurately determined and the closure criteria for the site are determined to be associated with the following constituent concentration limits as presented in Table 1.

Table 1. Closure Criteria for Soils Impacted by a Release

Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	Constituent	Limit
< 50 feet	Chloride	600 mg/kg
	TPH (GRO+DRO+MRO)	100 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

[1]Total Dissolved Solids (TDS)
[2]Total petroleum hydrocarbons (TPH) = gasoline range organics (GRO) + diesel range organics (DRO) + motor oil range organics (MRO)
[3]Benzene, toluene, ethylbenzene, and xylenes (BTEX)

Liner Inspection

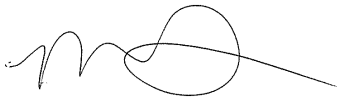
On June 3, 2022, Vertex provided 48-hour notification of the liner inspection to NMOCD District 2 and the BLM, as required by Subparagraph (a) of Paragraph (5) of Subsection A 19.15.29.11 NMAC. Due to a scheduling conflict a second notification was provided on June 16, 2022, to complete the liner inspection (Attachment 4). On June 20, 2022, Vertex was on-site to identify the area of the spill specified in the initial C-141 Report, conduct an inspection of the lined containment and verify that the liner was intact and had the ability to contain the release. Visual observation of the liner was completed on all sides and the base of the containment, around equipment and of all seams in the liner. As evidenced in the DFR, liner integrity was confirmed. The DFR and associated photographs of the liner inspection are included in Attachment 2.

Closure Request

Vertex recommends no remediation action to address the release at RDU 47. The secondary containment liner appeared to be intact and had the ability to contain the release, as shown in the inspection photographs included with the DFR (Attachment 2). There are no anticipated risks to human, ecological or hydrological receptors associated with the release site.

Vertex requests that incident nAPP2213830227 be closed as all closure requirements set forth in Subsection E of 19.15.29.12 NMAC have been met. WPX certifies that all information in this report and the attachments is correct, and that they have complied with all applicable closure requirements and conditions specified in Division rules and directives to meet NMOCD requirements to obtain closure on the open release at RDU 47.

Should you have any questions or concerns, please do not hesitate to contact the undersigned at 575.361.9880 or mpeppin@vertex.ca.



Monica Peppin
PROJECT MANAGER, REPORTING

July 6, 2022
Date

Attachments

Attachment 1. NMOCD C-141 Release Notification
Attachment 2. Daily Field Report(s) with Photographs
Attachment 3. Closure Criteria for Soils Impacted by a Release Research Determination Documentation
Attachment 4. Required 48-hr Notification of Liner Inspection to Regulatory Agencies

References

Google Inc. (2022). *Google Earth Pro (Version 7.3.4) [Software].* Retrieved from http://www.google.com/earth on March 1, 2022.

New Mexico Bureau of Geology and Mineral Resources. (2022). *Interactive Geologic Map.* Retrieved from http://geoinfo.nmt.edu.

New Mexico Energy, Minerals and Natural Resources Department. (2022). *Coal Mine Resources in New Mexico*. Retrieved from http://www.emnrd.state.nm.us/MMD/gismapminedata.html

New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System. (2022a). *Point of Diversion Location Report*. Retrieved from http://nmwrrs.ose.state.nm.us/nmwrrs/wellSurfaceDiversion.html.

New Mexico Office of the State Engineer, New Mexico Water Rights Reporting System. (2022b). *Well Log/Meter Information Report.* Retrieved from http://nmwrrs.ose.state.nm.us/nmwrrs/meterReport.html

New Mexico Oil Conservation Division. (2018). N*ew Mexico Administrative Code – Natural Resources and Wildlife Oil and Gas Releases*. Santa Fe, New Mexico.

United States Department of Agriculture, Natural Resources Conservation Service. (2022). *Web Soil Survey*. Retrieved from https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

United States Department of Homeland Security, FEMA Flood Map Service Center. (2020). *Flood Map Number 35015C1875D.* Retrieved from https://msc.fema.gov/portal/search?AddressQuery=malaga%20new%20mexico#searchresultsanchor.

United States Department of the Interior, Bureau of Land Management. (2018). *CFO Karst Public*. https://www.nm.blm.gov/shapeFiles/cfo/carlsbad_spatial_data.html.

United States Fish and Wildlife Service. (2022). *National Wetlands Inventory*. Retrieved from https://www.fws.gov/wetlands/data/Mapper.html.

Limitations

This report has been prepared for the sole benefit of WPX Energy Permian, LLC. This document may not be used by any other person or entity, with the exception of the New Mexico Oil Conservation Division and Bureau of Land Management, without the express written consent of Vertex Resource Services Inc. (Vertex) and WPX Energy Permian, LLC. Any use of this report by a third party, or any reliance on decisions made based on it, or damages suffered as a result of the use of this report are the sole responsibility of the user.

The information and conclusions contained in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted scientific practices current at the time the work was performed. The conclusions and recommendations presented represent the best judgement of Vertex based on the data collected during the assessment. Due to the nature of the assessment and the data available, Vertex cannot warrant against undiscovered environmental liabilities. Conclusions and recommendations presented in this report should not be considered legal advice.

ATTACHMENT 1

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	nAPP2213830227
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party WPX Energy Permian, LLC	OGRID 246289
Contact Name Jim Raley	Contact Telephone 575-689-7597
Contact email jim.raley@dvn.com	Incident # *(assigned by OCD)* nAPP2213830227
Contact mailing address 5315 Buena Vista Drive, Carlsbad, NM 88220	

Location of Release Source

Latitude 32.0347519 Longitude -103.8757782
(NAD 83 in decimal degrees to 5 decimal places)

Site Name ROSS DRAW UNIT #047H	Site Type Oil Well Pad
Date Release Discovered 5/15/2022	API# *(if applicable)* 30-015-41581

Unit Letter	Section	Township	Range	County
D	22	26S	30E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 20	Volume Recovered (bbls) 20
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Head switch failed to activate water transfer pump. Allowing tank to overflow approx. 20 bbls produced water to lined secondary containment. Fluids recovered.

Volume Estimate = Recovered Volume

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2213830227
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Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Jim Raley Title: Environmental Proffesional

Signature: Jim Raley Date: 5/18/2022

email: jim.raley@dvn.com Telephone: 575-689-7597

OCD Only

Received by: _____ Date: _____

Incident ID	nAPP2213830227
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Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	125 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ N/A Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ N/A Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ N/A Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

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Printed Name: Jim Raley Title: Environmental Professional

Signature: Jim Raley Date: 7/6/2022

email: jim.raley@dvn.com Telephone: 575-689-7597

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2213830227
District RP	
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Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Jim Raley Title: Environmental Professional

Signature: Jim Raley Date: 7/6/2022

email: jim.raley@dvn.com Telephone: 575-689-7597

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

ATTACHMENT 2

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	6/20/2022
Site Location Name:	Ross Draw Unit #047H	Report Run Date:	6/21/2022 2:25 AM
Client Contact Name:	Wes Matthews	API #:	
Client Contact Phone #:	(575) 748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	6/20/2022 8:30 AM
Departed Site	6/20/2022 10:34 AM

Field Notes

10:25 Complete inspection of liner to determine if any rips or tears would have allowed fluid to breach

10:39 No signs of potential breach through liner. Liner is fully intact

Next Steps & Recommendations

1 Complete closure report

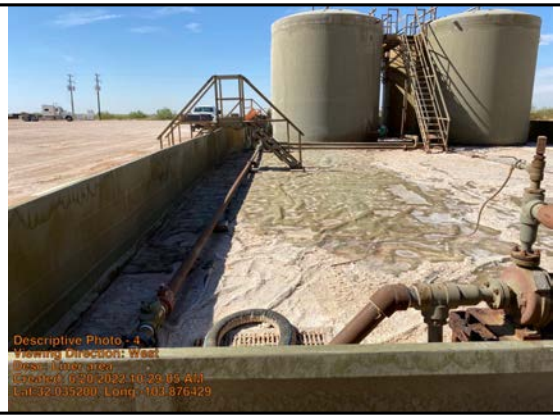
Daily Site Visit Report

Site Photos

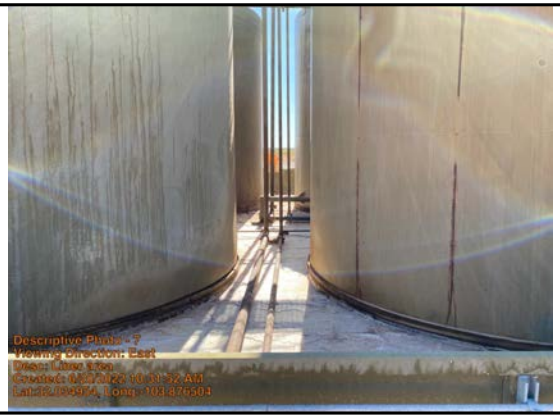
Viewing Direction: North	**Viewing Direction**: East
	
Liner area	Liner area
Viewing Direction: North	**Viewing Direction**: West
	
Liner area	Liner area

Daily Site Visit Report

Viewing Direction: North	**Viewing Direction**: West
	
Liner area	Liner area

Viewing Direction: West	**Viewing Direction**: West
	
Liner area	Liner area

Daily Site Visit Report

Viewing Direction: East	**Viewing Direction**: East
	
Liner area	Liner area
Viewing Direction: South	**Viewing Direction**: East
	
Liner area	Liner area

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Monica Peppin

Signature: 

ATTACHMENT 3

STATE ENGINEER OFFICE
ROSWELL, NEW MEXICO
2017 MAY 17 PM 1:58

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NUMBER (WELL NUMBER)	OSE FILE NUMBER(S)
C-4068 POD1	C-4068
WELL OWNER NAME(S)	PHONE (OPTIONAL)
RKI Exploration and Production, LLC	
WELL OWNER MAILING ADDRESS	CITY / STATE / ZIP
3500 One Williams Center MD 35,	Tulsa / OK / 74172

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	2	43.95	N
	LONGITUDE	103	53	39.23	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

NW/4SW/4NW/4 Section 16, Township 26S, Range 30 E, N.M.P.M.

2. DRILLING & CASING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
5/11/2017	5/12/2017	n/a	125	none encountered

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): n/a

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☐ ROTARY ☐ HAMMER ☐ CABLE TOOL ☑ OTHER – SPECIFY: hollow stem auger with air rotary

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	125	±6.625	n/a	n/a	n/a	n/a	n/a

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
n/a	n/a	n/a	n/a	n/a	n/a

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 10/29/15)

FILE NUMBER	C-4068	POD NUMBER	1	TRN NUMBER	6006777
LOCATION	26S.30E.16.1.3.1			EXPL	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	5	5	white caliche small gravel	Y ✓ N	
5	20	15	light brown fine sand with small gravel	Y ✓ N	
20	40	20	tan sand, medium gravel, sandstone	Y ✓ N	
40	50	10	white tannish sand/sandstone	Y ✓ N	
50	90	40	tannish very fine sandstone	Y ✓ N	
90	110	20	fine reddish tan sandstone	Y ✓ N	
110	125	15	fine reddish sandstone with small layers of reddish clay	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD

MISCELLANEOUS INFORMATION: Log adapted from Souder Miller & Associates oversight. Boring to determine presence/absence of water. Boring advanced with combination of air rotary and hollow stem auger tooling. No water encountered. Boring not converted to well. Boring abandoned see plugging record.

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

Guadalupe "Lupe" Leyba, Shane Eldridge

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

Jackie D. Atkins — 5/17/2017

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 10/29/2015)

FILE NUMBER	C-4068	POD NUMBER	1	TRN NUMBER	6006777
LOCATION	26S.30E.16.1.3.1			EXPL	PAGE 2 OF 2

Tom Blaine, P.E.
State Engineer

Roswell Office
1900 WEST SECOND STREET
ROSWELL, NM 88201

STATE OF NEW MEXICO
OFFICE OF THE STATE ENGINEER

Trn Nbr: 606777
File Nbr: C 04068
Well File Nbr: C 04068 POD1

Jun. 12, 2017

JUSTIN BARMORE
RKI EXPLORATION AND PRODUCTION LLC
3500 ONE WILLIAMS CENTER MD 35
TULSA, OK 74172

Greetings:

The above numbered permit was issued in your name on 05/08/2017.

The Well Record was received in this office on 05/17/2017, stating that it had been completed on 05/12/2017, and was a dry well. The well is to be plugged or capped or otherwise maintained in a manner satisfactory to the State Engineer.

Please note that another well can be drilled under this permit if the well is completed and the well log filed on or before 05/15/2018.

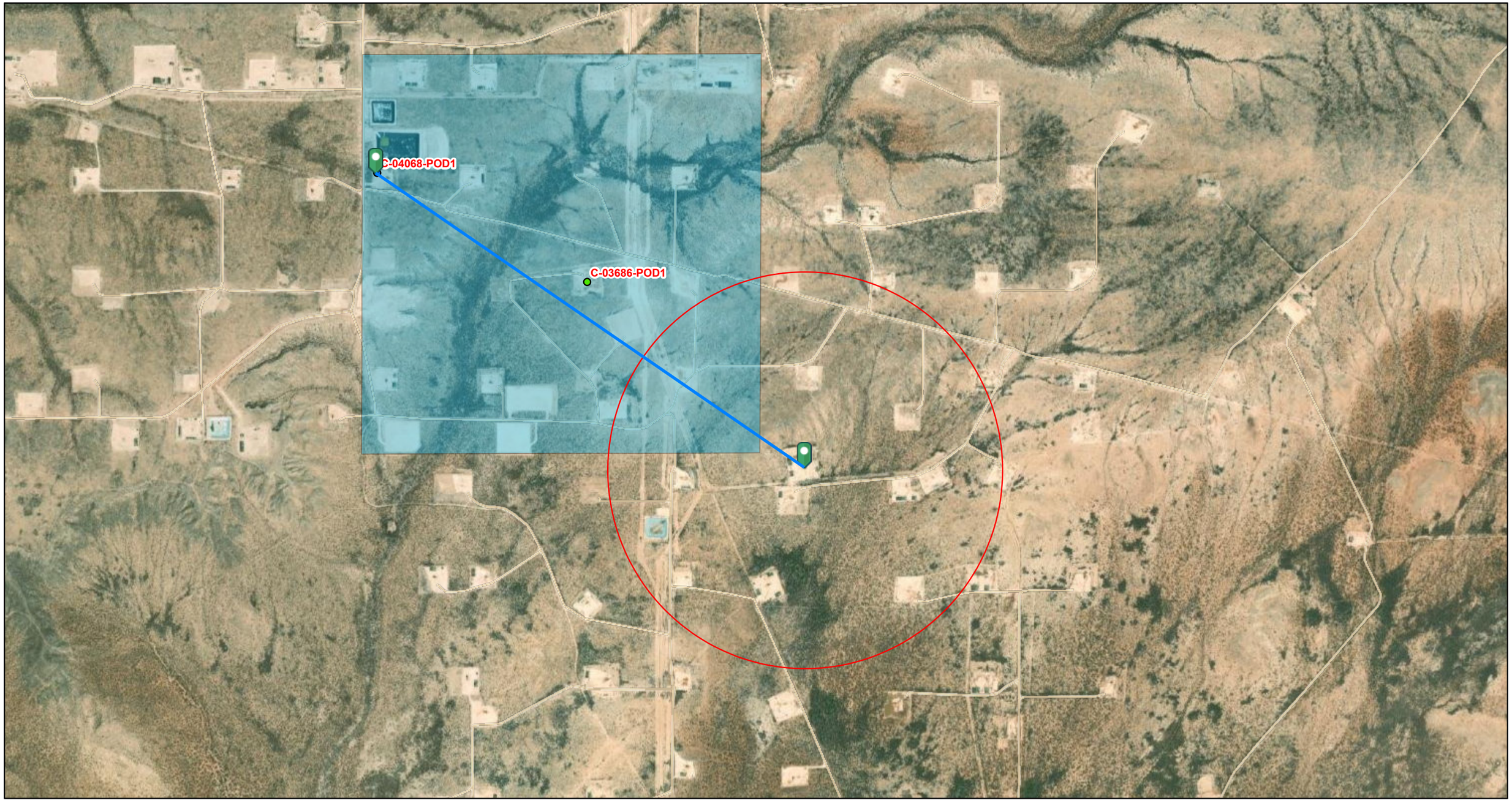
If you have any questions, please feel free to contact us.

Sincerely,

Deborah Dunaway
(575)622-6521

drywell

Ross Draw Unit #047H



5/23/2022, 10:59:01 AM

1:18,056

Override 1

Pending

New Mexico State Trust Lands

GIS WATERS PODs

OSE District Boundary

Both Estates

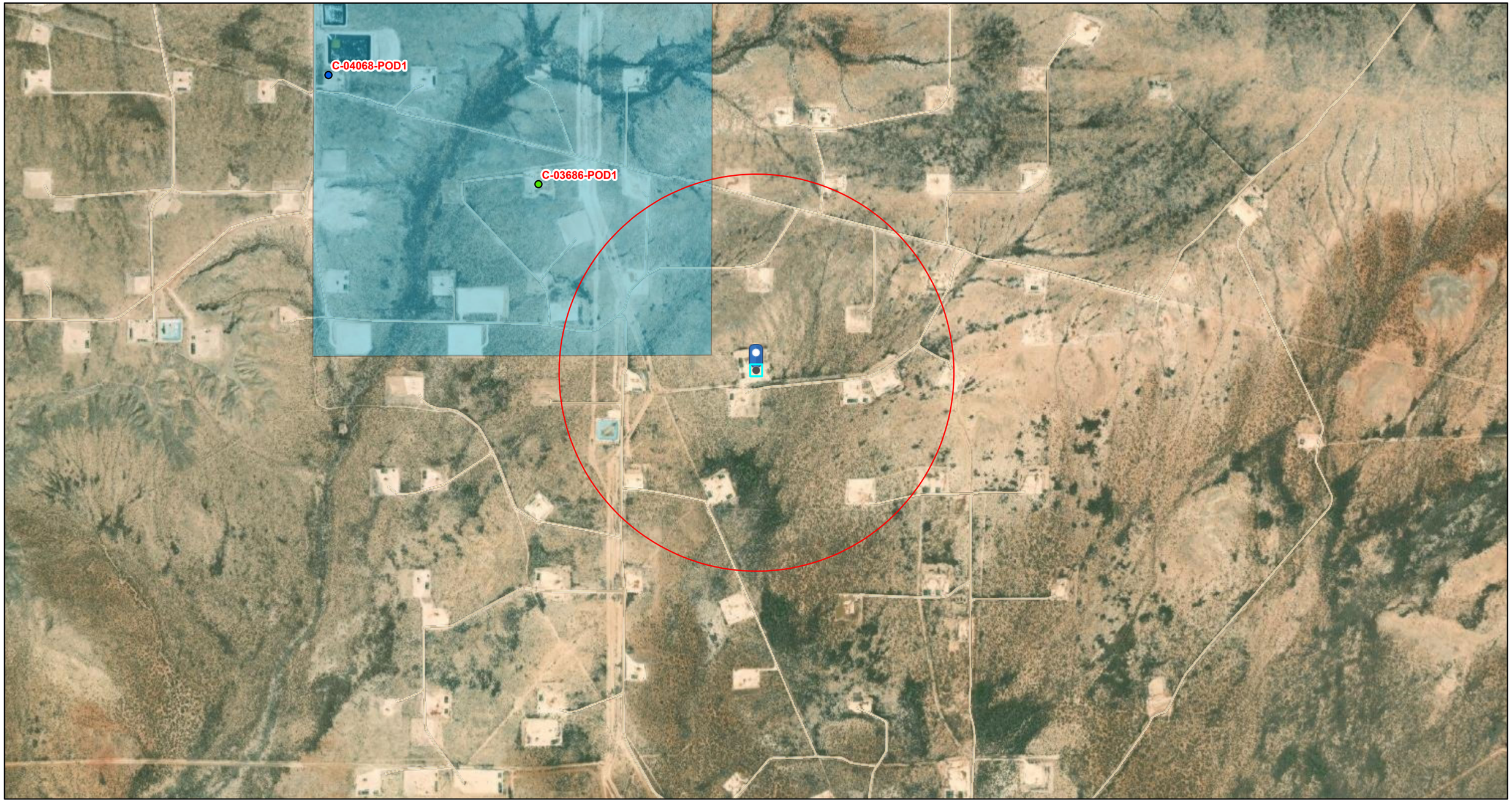
Active

SiteBoundaries

0 0.17 0.35 0.7 mi

0 0.3 0.6 1.2 km

Ross Draw Unit #047H



5/23/2022, 10:56:04 AM

GIS WATERS PODs
- Active
- Pending

OSE District Boundary

New Mexico State Trust Lands

Both Estates

SiteBoundaries

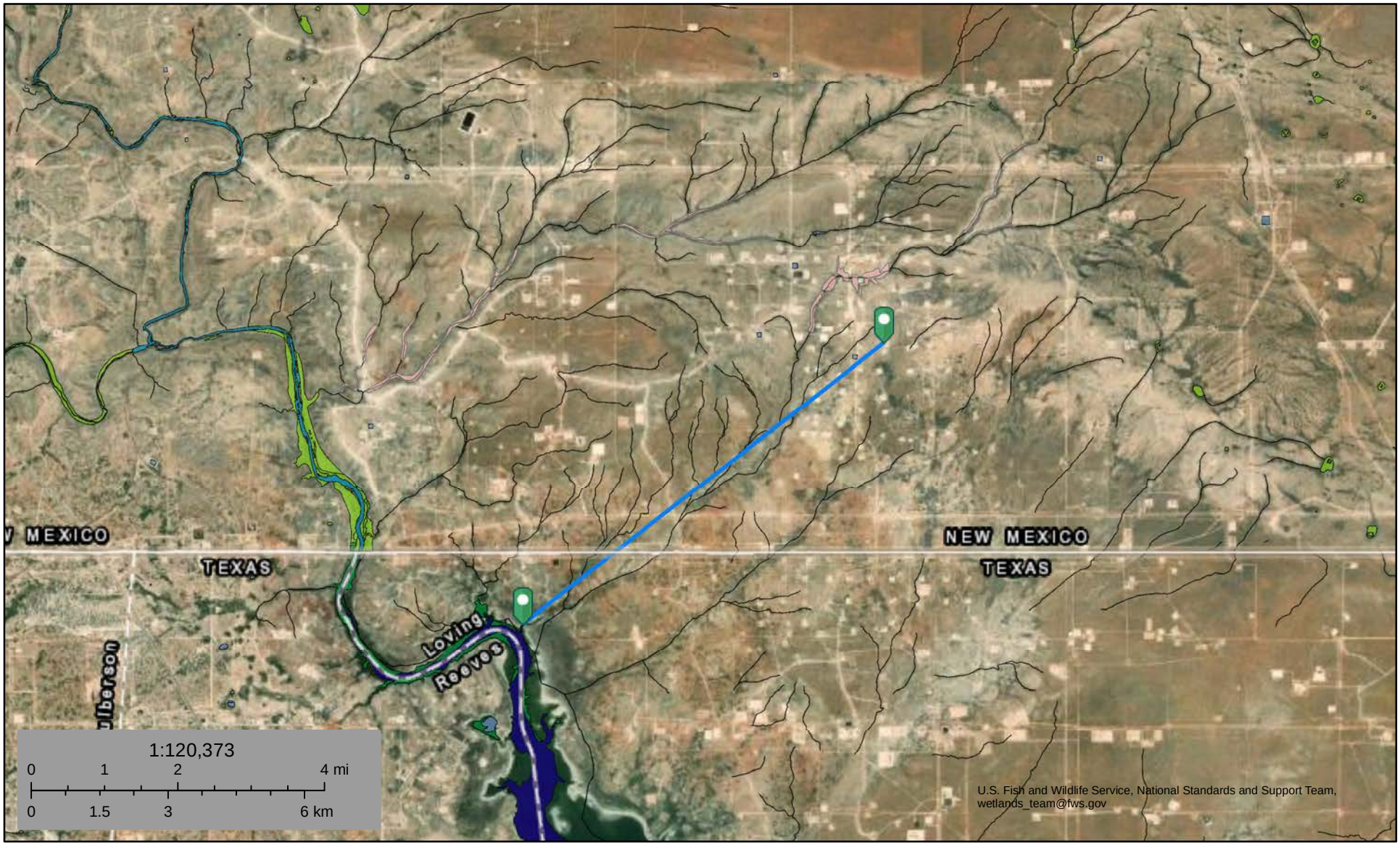
1:18,056

0 0.17 0.35 0.7 mi

0 0.3 0.6 1.2 km

U.S. Fish and Wildlife Service
National Wetlands Inventory

Ross Draw Unit 47



May 23, 2022

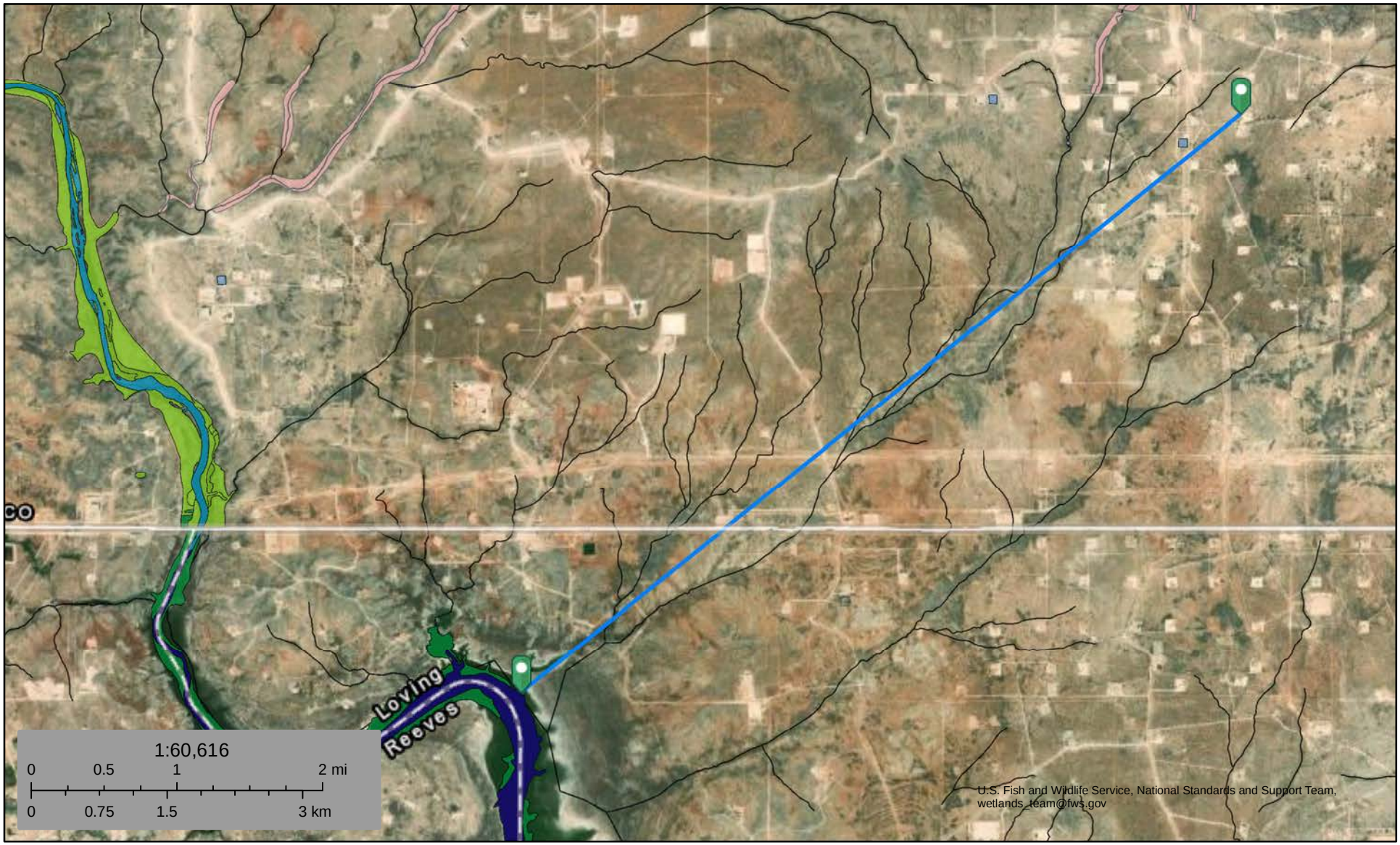
Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

U.S. Fish and Wildlife Service
National Wetlands Inventory

Ross Draw Unit #047H



May 23, 2022

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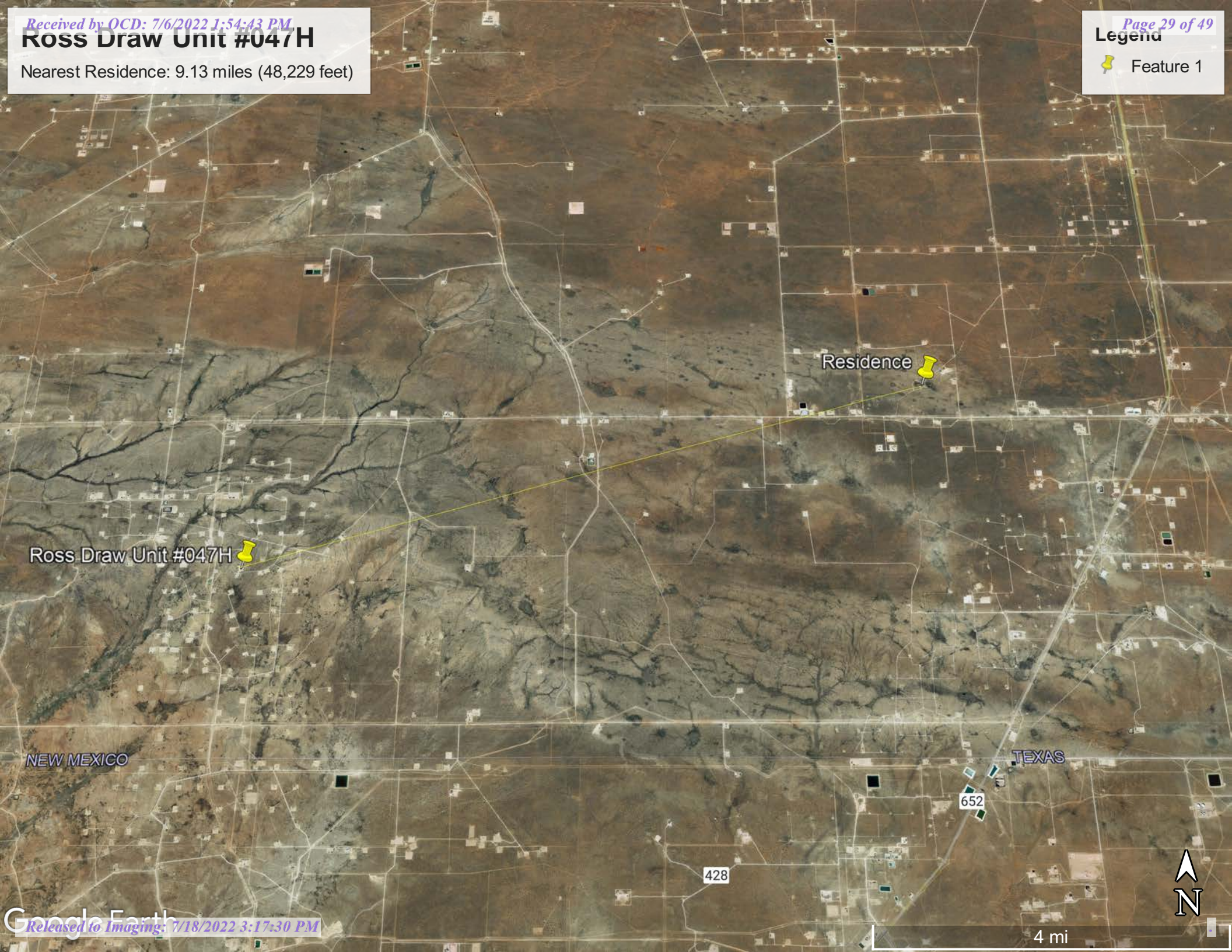
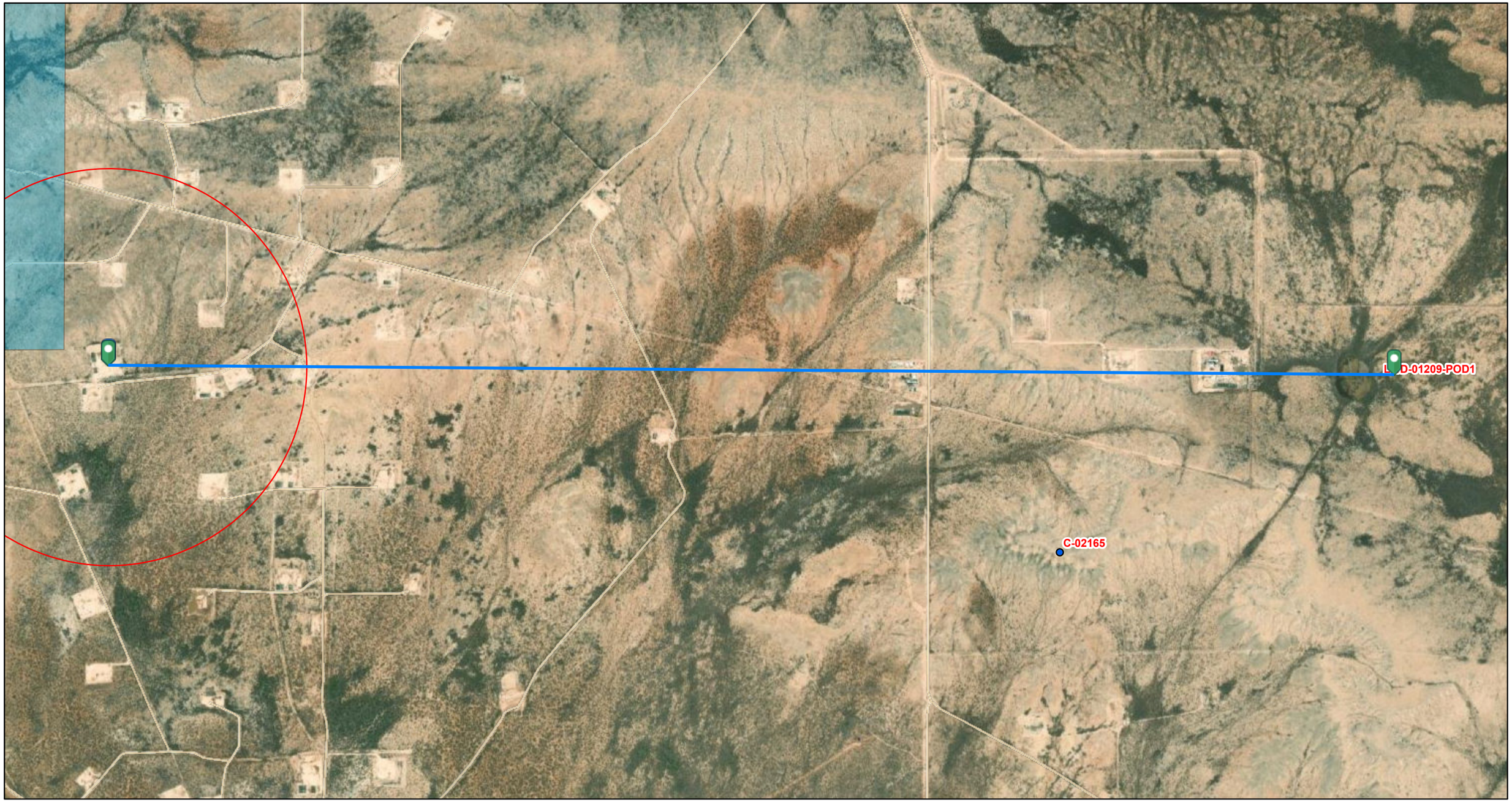
Ross Draw Unit #047H

Nearest Residence: 9.13 miles (48,229 feet)



Ross Draw Unit #047H



5/23/2022, 11:03:48 AM

1:18,056

Override 1

OSE District Boundary

SiteBoundaries

GIS WATERS PODs

New Mexico State Trust Lands

Active

Both Estates

0 0.17 0.35 0.7 mi

0 0.3 0.6 1.2 km

New Mexico Office of the State Engineer
Water Right Summary

get image list

WR File Number: LWD 01209 **Subbasin:** CUB **Cross Reference:** LWD-C-14

Primary Purpose: PLS NON 72-12-1 LIVESTOCK WATERING

Primary Status: DCL DECLARATION

Total Acres: 11 **Subfile:** - **Header:** -

Total Diversion: 22.7 **Cause/Case:** -

Owner: BUCK & LARUE JACKSON TRUST

Documents on File

Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	631580	DCL 1992-03-16	DCL	PRC	LWD-C-14	T	11	22.7	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
LWD 01209 POD1			1	2	1	19	26S	31E	611349	3544855*	

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

Priority Summary

Priority	Status	Acres	Diversion	Pod Number
12/31/1906	DCL	11	22.7	LWD 01209 POD1

Place of Use

Q 256	Q 64	Q16	Q4	Sec	Tws	Rng	Acres	Diversion	CU	Use	Priority	Status	Other Location Desc
	1	2	1	19	26S	31E	11	22.7		PLS	12/31/1906	DCL	

Source

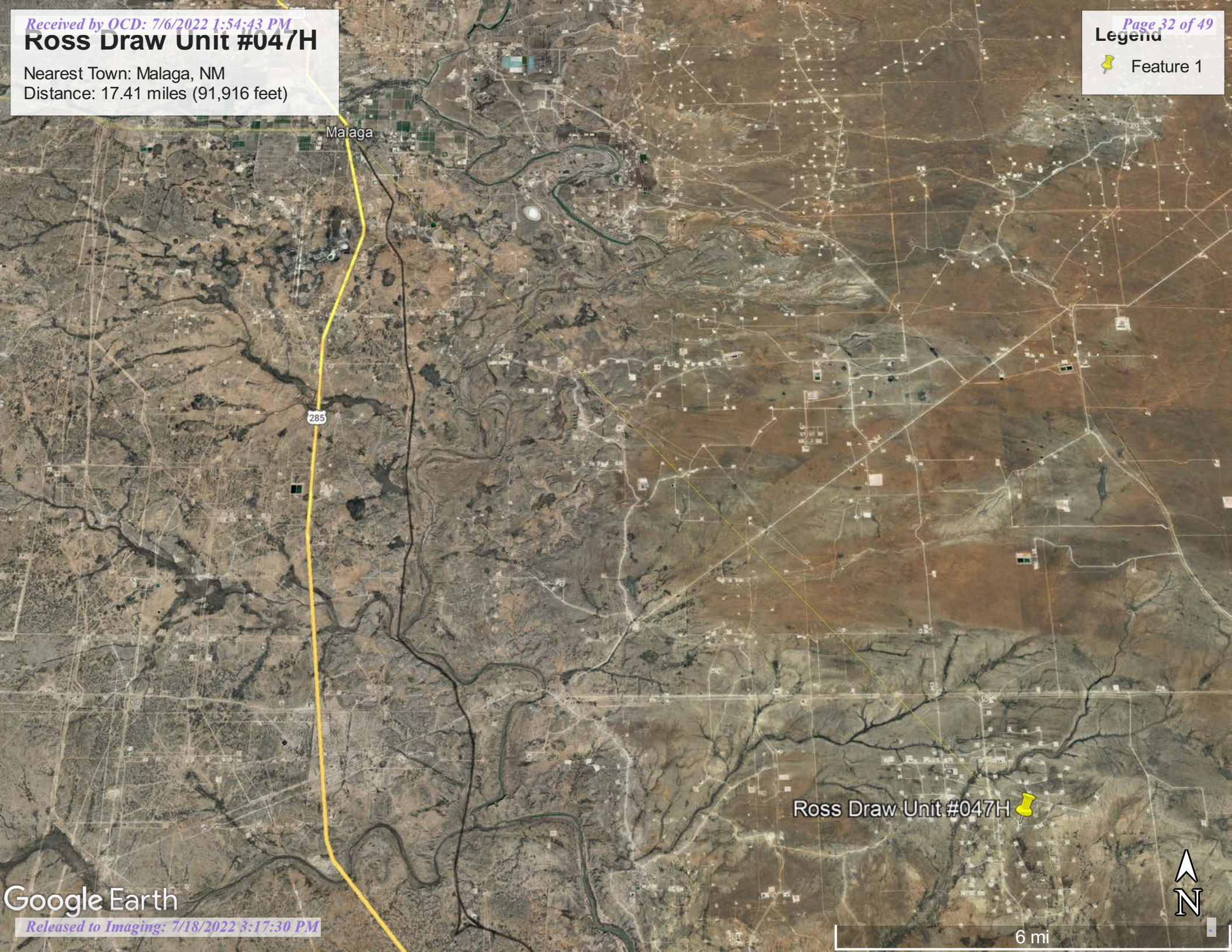
Acres	Diversion	CU	Use	Priority	Source	Description
11	22.7		PLS	12/31/1906	SW	

Ross Draw Unit #047H

Nearest Town: Malaga, NM
Distance: 17.41 miles (91,916 feet)

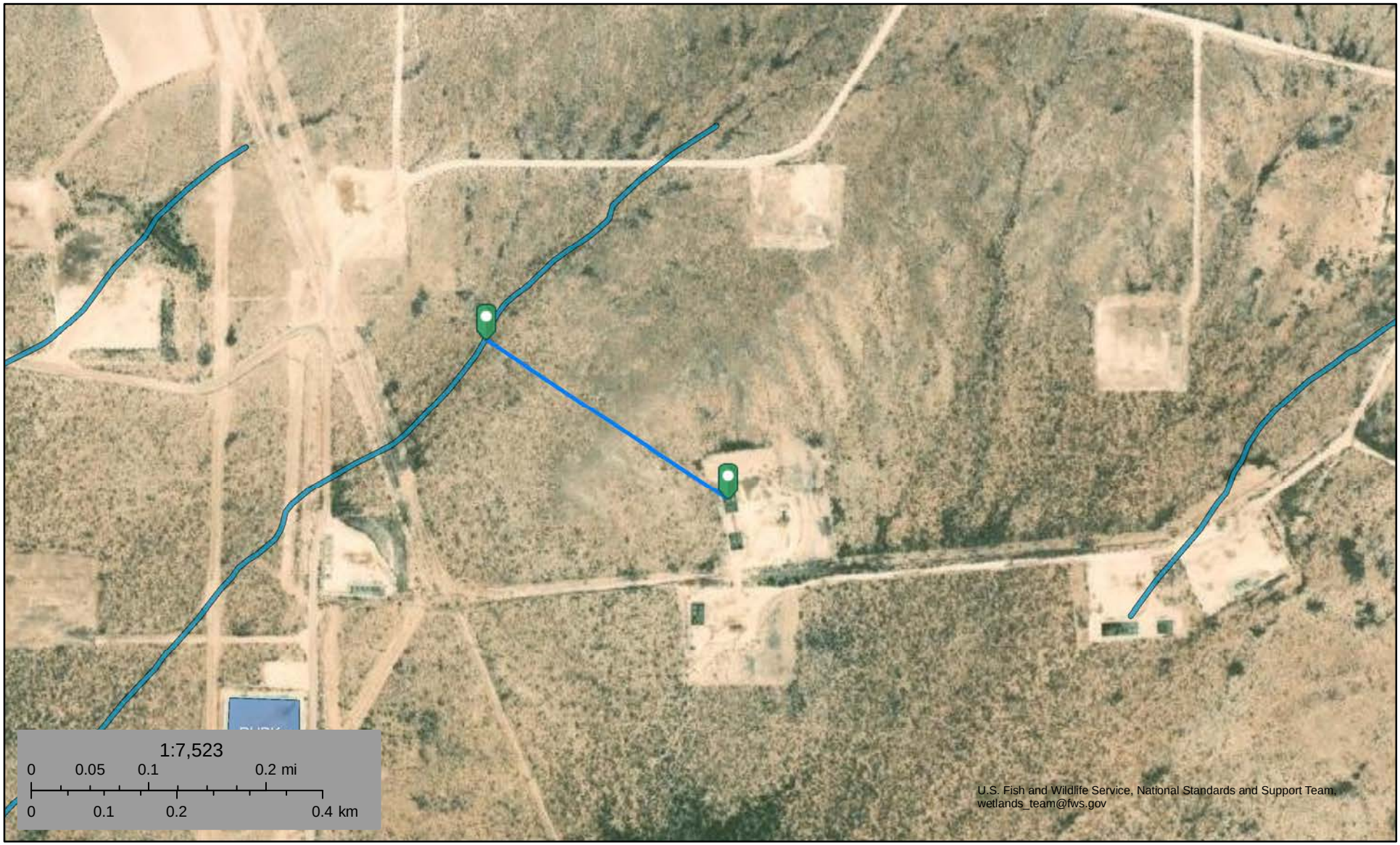
Legend

Feature 1



U.S. Fish and Wildlife Service
National Wetlands Inventory

Ross Draw Unit 47



May 23, 2022

Wetlands

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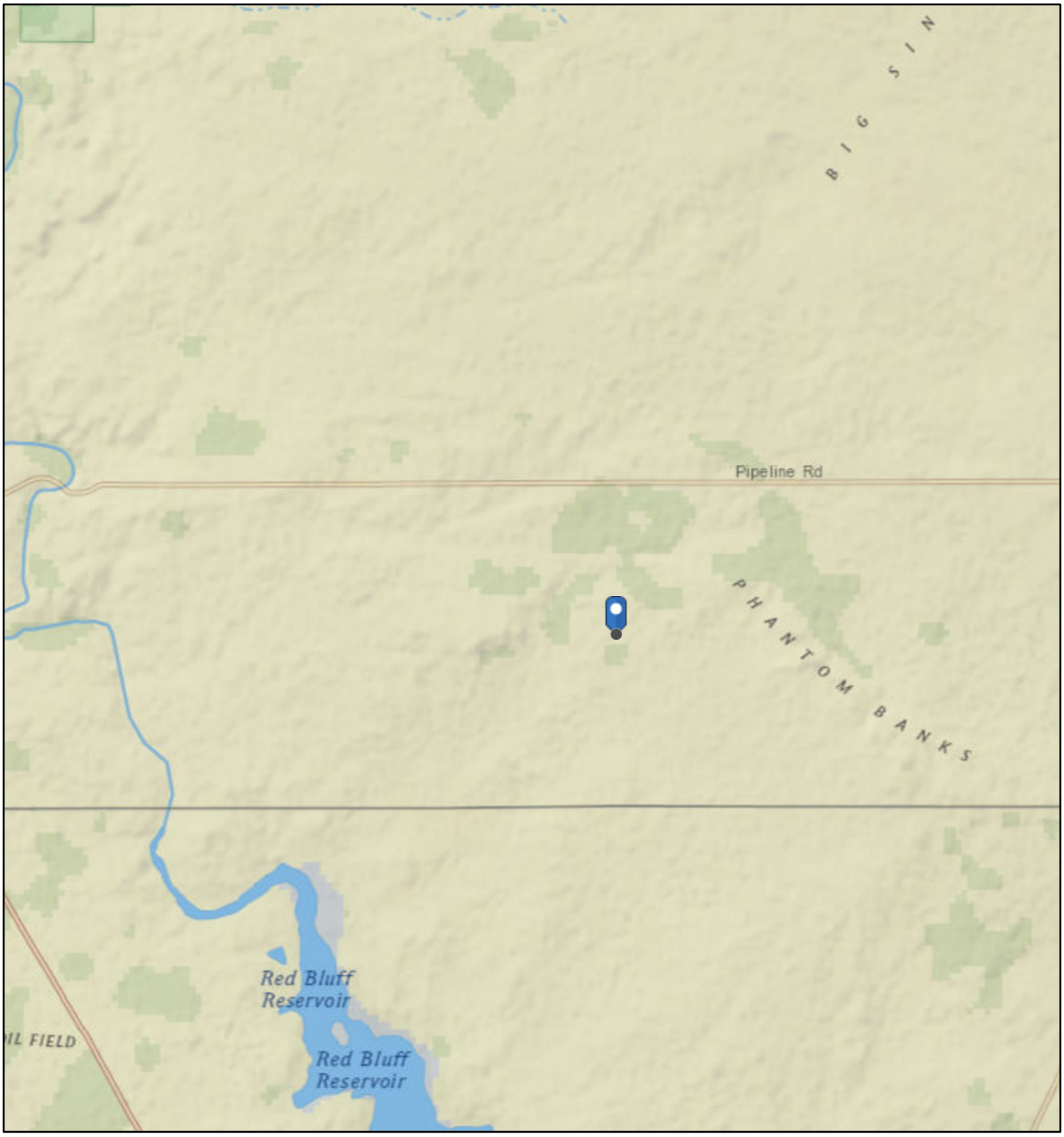
National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Coal Mines in New Mexico



5/23/2022, 3:58:51 PM

1:144,448

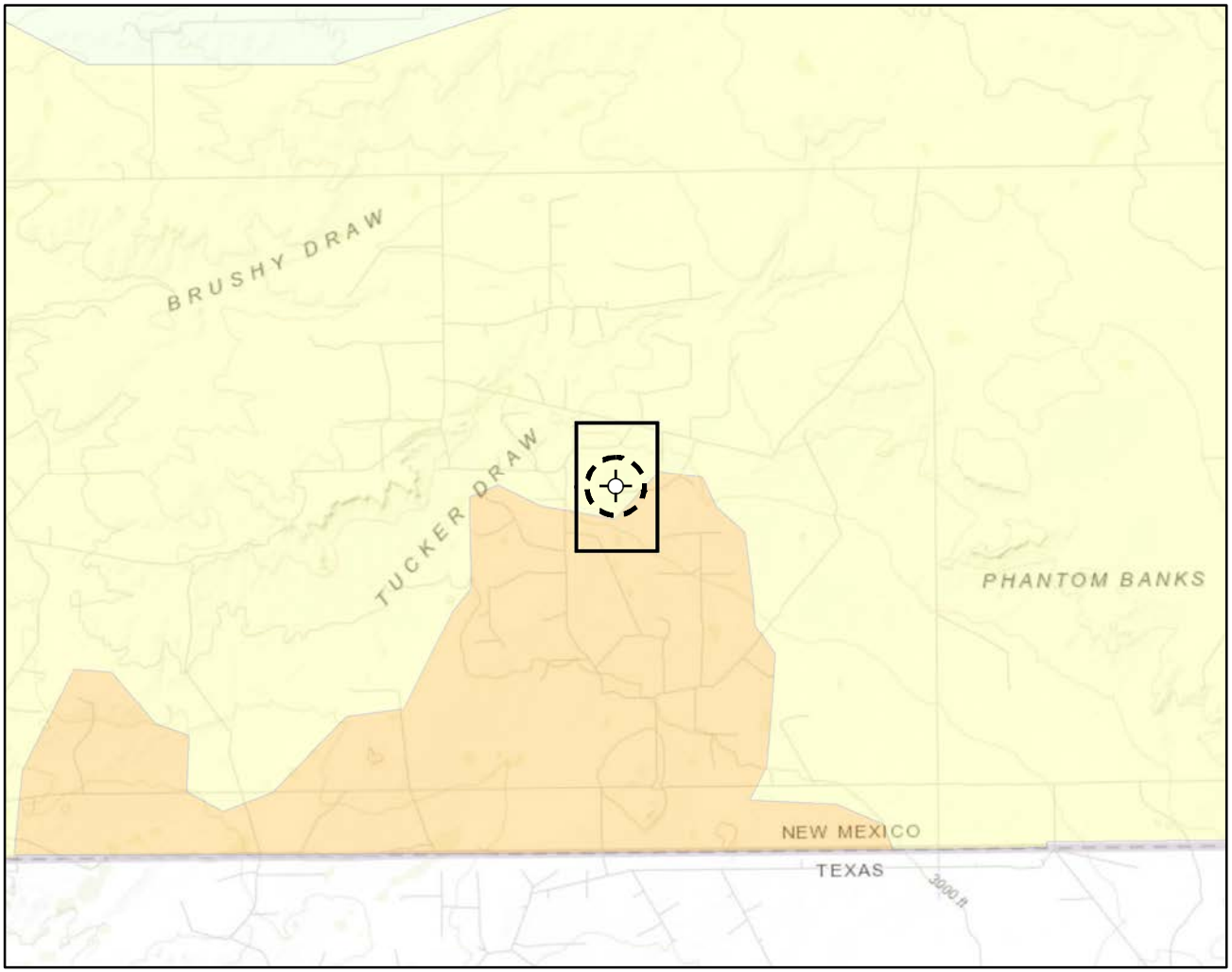
0 1 2 4 mi

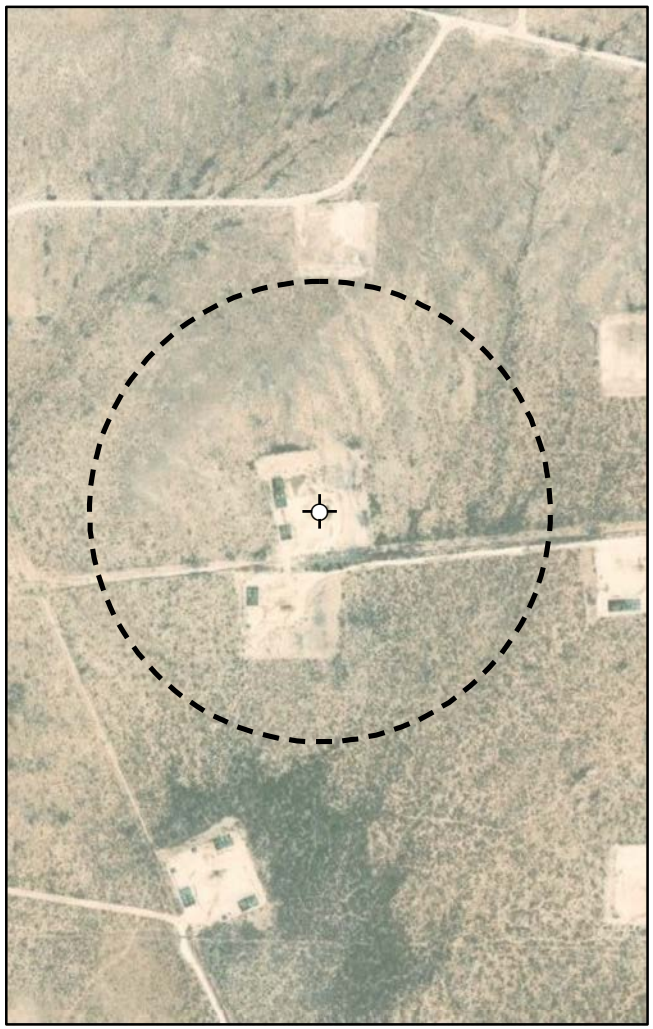
0 1.5 3 6 km

National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

EMNRD MMD GIS Coordinator

Powered by Esri | Energy, Minerals and Natural Resources Department (http://nm-emnrd.maps.arcgis.com/apps/webappbuilder/index.html?id=7ebfa3c432db42978d66c99a9cc8311a)





Karst Potential

- Critical
- High
- Medium
- Low

Site Location

Overview Map

0 0.25 0.5 1 mi

Detail Map

0 150 300 600 ft.

VERTEX

Map Center:
Lat/Long: 32.034801, -103.875876

NAD 1983 UTM Zone 13N
Date: May 31/22

N

Karst Potential
Ross Draw Unit #407H

FIGURE:
X

devon

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Inset Map, ESRI 20XX; Overview Map: ESRI World Topographic. Karst potential data sourced from Rosswell Field Office, Bureau of Land Management, 2020 or United States Department of the Interior, Bureau of Land Management. (2018). Karst Potential.

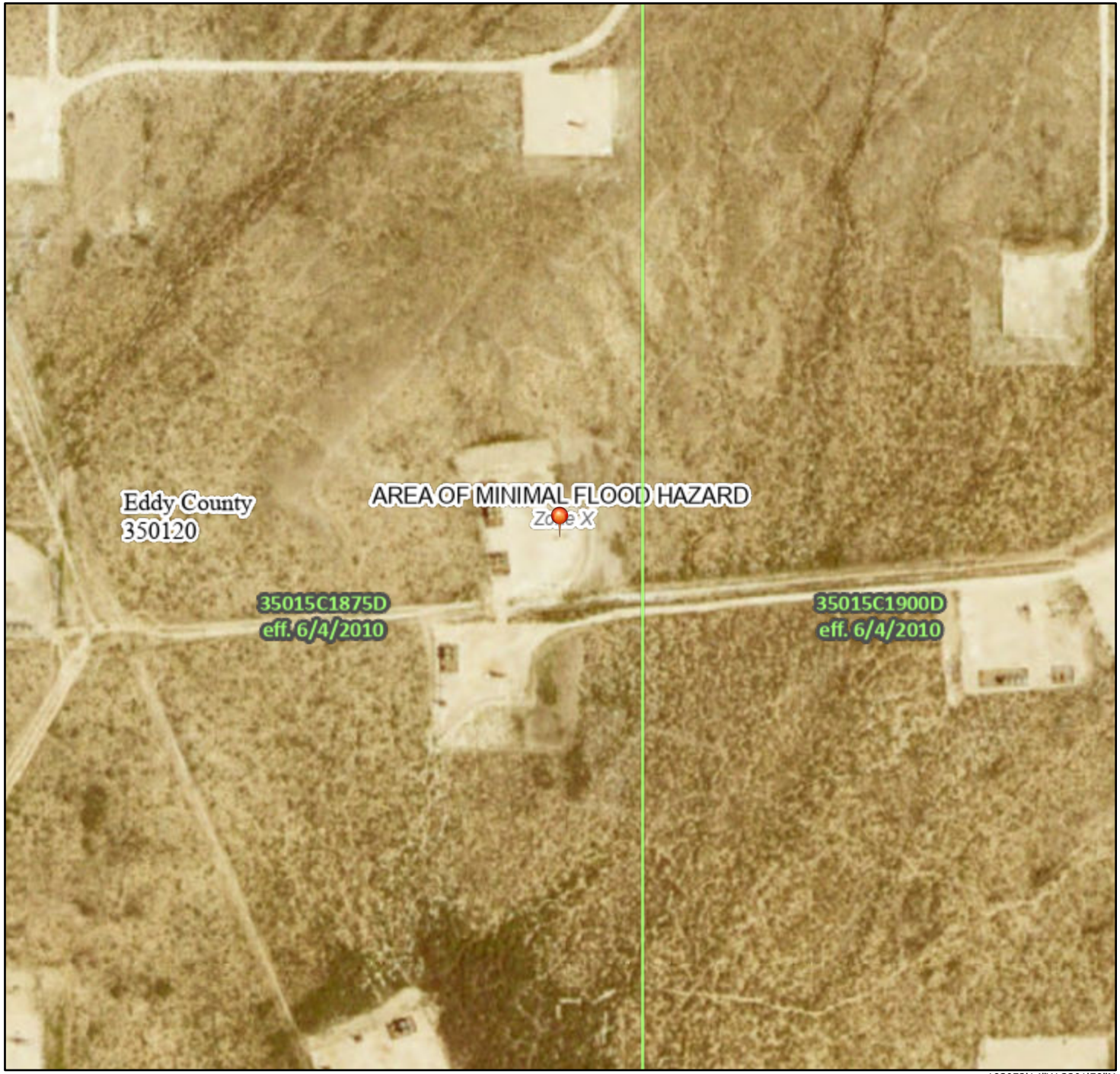
VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECTS\Devon Energy Corporation\2022\22E-01896 - Ross Draw Unit #047H\Figure X Karst Potential (Ross Draw Unit #407H).mxd

National Flood Hazard Layer FIRMette

FEMA

103°52'52"W 32°2'20"N



103°52'14"W 32°1'50"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/23/2022 at 5:21 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Soil Map—Eddy Area, New Mexico

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 17, Sep 12, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
US	Upton-Simona complex, 1 to 15 percent slopes, eroded	5.8	100.0%
Totals for Area of Interest		**5.8**	**100.0%**

Eddy Area, New Mexico

US—Upton-Simona complex, 1 to 15 percent slopes, eroded

Map Unit Setting

National map unit symbol: 1w66
Elevation: 2,000 to 5,700 feet
Mean annual precipitation: 6 to 14 inches
Mean annual air temperature: 57 to 70 degrees F
Frost-free period: 180 to 260 days
Farmland classification: Not prime farmland

Map Unit Composition

Upton and similar soils: 40 percent
Simona and similar soils: 35 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Upton

Setting

Landform: Ridges, fans
Landform position (three-dimensional): Side slope, rise
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from limestone

Typical profile

H1 - 0 to 9 inches: gravelly loam
H2 - 9 to 13 inches: gravelly loam
H3 - 13 to 21 inches: cemented
H4 - 21 to 60 inches: very gravelly loam

Properties and qualities

Slope: 1 to 15 percent
Depth to restrictive feature: 7 to 20 inches to petrocalcic
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high (0.01 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 75 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R042XC025NM - Shallow
Hydric soil rating: No

Description of Simona

Setting

Landform: Plains, alluvial fans
Landform position (three-dimensional): Rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 6 inches: gravelly fine sandy loam
H2 - 6 to 20 inches: gravelly fine sandy loam
H3 - 20 to 24 inches: indurated

Properties and qualities

Slope: 1 to 5 percent
Depth to restrictive feature: 7 to 20 inches to petrocalcic
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Very low (about 2.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: R042XC002NM - Shallow Sandy
Hydric soil rating: No

Minor Components

Rock outcrop

Percent of map unit: 9 percent
Hydric soil rating: No

Dune land

Percent of map unit: 8 percent
Hydric soil rating: No

Pajarito

Percent of map unit: 8 percent
Ecological site: R042XC003NM - Loamy Sand

Hydric soil rating: No

Data Source Information

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 17, Sep 12, 2021

Ecological Reference Worksheet

Author(s) / participant(s): John Tunberg, Garth Grizzle

Contact for lead author : 505-761-4488 **Reference site used? Yes/No** No

Date: 2/17/2010 **MLRA:** 42.3 **Ecological Site:** Shallow This *must* be verified based on soils and climate (see Ecological Site Description). Current plant community *cannot* be used to identify the ecological site.

Indicators: For each indicator, describe the potential for the site. Where possible, **(1)** use numbers, **(2)** include expected range of values for above and below average years for **each** community within the reference state, when appropriate & **(3)** site data. Continue description on separate sheet.

1. Number and extent of rills : There should not be any rills on this site at 5% or less slope. Few on slopes from 5 to 15% After wildfires, or abnormally high human or herbivore impacts or extended drought or combinations of these disturbances rills may double in number on steeper slopes at the margins of this site after high-intensity summer thunderstorms. Any rills formed should not be long lived or interconnected and should heal rapidly.

2. Presence of water flow patterns: Large storms can produce short, less than 1 meter flow patterns across the bare patches.

None or few on less than 5% slopes. Few to several on slopes ranging from 5% to 15%. Flow pattern length of 6 to 8 feet on steeper slopes. Water flow patterns should only be present following intense storm events on upper slope limits at the margins of this site. Numerous obstructions alter flow paths. Flow pattern length and numbers may double after wildfires, or abnormally high human or herbivore impacts or extended drought or combinations of these disturbances.

3. Number and height of erosional pedestals or terracettes: There should not be any pedestals and terracettes should be rare.

If present plant or rock pedestals and terracettes are almost always in flow patterns. Wind caused pedestals are rare and only would be on the site following after wildfires, or abnormally high human or herbivore impacts or extended drought or combinations of these disturbances. These would show signs of healing within 1 year after event.

4. Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground) :

Bare ground can range from 40 to 60% with bare patches less than 8 inches in size. Discontinuous. Cobble and stones up to 25%.

5. Number of gullies and erosion associated with gullies: There should not be any gullies or erosion associated with gullies on this site at slopes less than 8%.

Slopes over 8% may have limited gully erosion. Natural drainages with little to no active cutting are common on this site. There should not be any accelerated erosion. After high-intensity summer thunderstorms or after wildfire, or abnormally high human or herbivore impacts or extended drought or combinations of these disturbances then gully formation would be accelerated for a year or two. Evidence of healing within 1 year of event and continuing after that.

6. Extent of wind scoured, blowouts and/or depositional areas

Wind scoured , blowouts and/or depositional areas should be rare and associated with disturbances (e.g. small mammal burrows, resting areas). Wind erosion is minimal when the site is in a well vegetated condition. Significant wind erosion would only be present following high-intensity summer thunderstorms, after wildfire, or abnormally high human or herbivore impacts or extended drought or combinations of these disturbances. After rain events, exposed soil surfaces form physical crusts that tend to reduce wind erosion. Deposition from off site sources can be common on this site and is in fact a primary soil forming process. This site is succeptable to wind erosion when vegetation is removed or significantly decreased.

7. Amount of litter movement (describe size and distance expected to travel) :

The size of the litter (grass litter) should be small and its movement should be less than 1 meter across bare patches.

8. Soil surface (top few mm) resistance to erosion (stability) values are averages - most sites will show a range of values for both plant canopy and interspaces, if different) :

Stability values are estimated to be 5 to 6 in plant canopy at surface and subsurface. 4 to 5 valus will be in interspaces at surface and subsurface.

9. Soil surface structures and SOM content (include type and strength of structure, and A-horizon color and thickness for both plant canopy and interspaces, if different) :

Surface layer is brown 0 to 3 " thick. Color is dark grey brown, brown and grey brown. Soil loss from human and high herbivor impact or extended drought will result in the loss of a portion of the surface horizon. Physical crust will occure on "baked" soils. Textures are loam and gravelly loam.

10. Effect of plant community composition (relative proportion of different functional groups) & spatial distribution on infiltration & runoff:

In a grassland with uniformly distributed grass patches on coarse-textured soils, runoff should be low to nil. Most water infiltrates at the plant bases as well as in the interspaces.

11. Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction): There should not be any compaction layers on this site.

There are soil profile features in the top 9 inches of the soil profile that would be mistaken for a management induced soil compaction layer. Management induced compaction layers will be more difficult to penetrate than clay lenses.

12. Functional/Structural Groups (list in order of descending dominance by above-ground weight using symbols: indicate much greater than (>>) , greater than (>) , and equal to (=) :

Dominants: Black grama > Subdominants: Short-lived perennial C4 bunchgrasses [blue grama and sideoats grama] > Long-lived perennial C4 midgrasses > shrubs > forbs

13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence) :

Short-lived perennial component can exhibit significant mortality in drought, black grama tends to exhibit mortality only when exposed to drought in addition to other stressors. Shrubs/yucca should exhibit low mortality rates.

14. Average percent litter cover (_____ %) and depth (_____ inches).

5 to 8% litter cover on this site. Well distributed. Depth of 1/2 inch.

15. Expected annual production (this is <u>TOTAL</u> above-ground production, not just forage production):

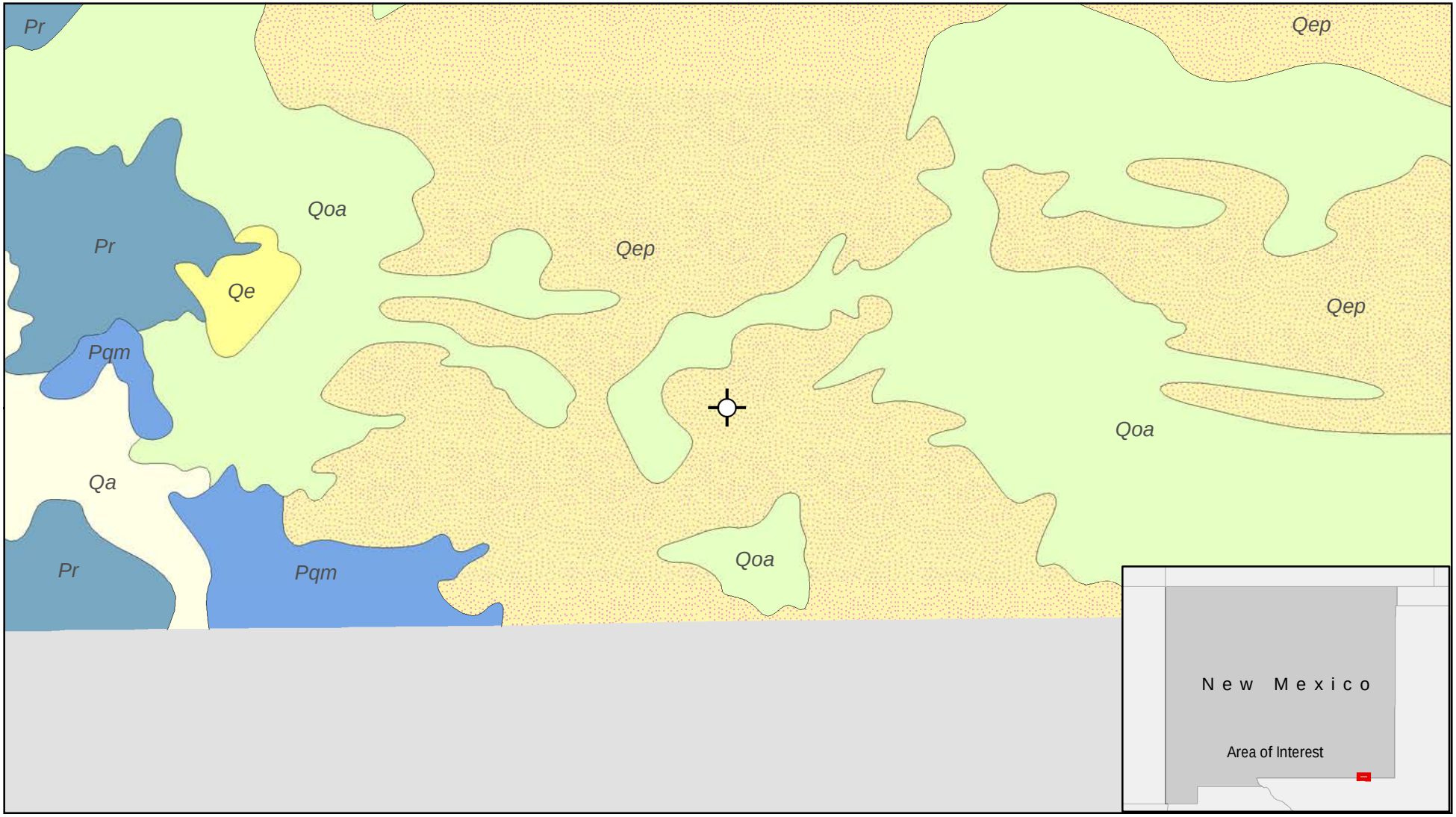
(Low Production 251 lbs./ac.) (Average RV Production 525 lbs./ac.) (High Production 800 lbs./ac.) After wildfires, high herbivore impacts, extended drought, or combinations of these disturbances, can cause production to be significantly reduced (100-200 lbs per ac. the first growing season following a wildfire) and recover slowly under below average precipitation regimes.

16. Potential invasive (including noxious) species (native and non-native). List species which characterize degraded states and which, after a threshold is crossed, "can, and often do , continue to increase regardless of the management of the site and may eventually dominate

Mesquite, whitethorn and creosotebush (where gravel content high) can be invaders of this site. Invasive plants should not occur in reference plant community. However, lovegrass, Russian thistle, kochia, and other nonnative annuals may initialy invade following extended disturbance. Mesquite and whitethorn and creosote and lovegrass are the greatest threat to dominate this site in the long term after disturbance (primarily following wildfire exclusion but also includes high human or herbivore impacts and extended drought). Mesquite and whitethorn and creosote and lovegrass are most likely to retain dominance if allowed to alter natural fire regime (this alteration may require poor land management combined with years of wet winter-spring; dry summer-fall conditions). Any of these invaded communities represent a departure from the reference state.

17. Perennial plant reproductive capability :

Black grama reproduces by seed sporadically and reproduction by tiller and stolon can be common. The dropseeds should have high reproductive potential and rapidly recover from drought in the absence of additional stresses (grazing).



Site Location

Lithologic Contacts

[contact] lithologic

map-boundary

Lithologic Units

Pqm

Pr

Qa

Qe

Qep

Qoa

VERTEX

0 0.75 1.5 Miles

Map Center:
Lat/Long: 32.034752, -103.875778

NAD 1983 UTM Zone 13N
Date: May 31/22

N

New Mexico Geology
Ross Draw Unit #407H

FIGURE:
G

devon

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Geology data sourced from New Mexico Bureau of Geology & Mineral Resources, Bureau of Land Management.

VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECTS\Devon Energy Corporation\2022\22E-01896 - Ross Draw Unit #047H\Figure G Geology (Ross Draw Unit #407H).mxd

ATTACHMENT 4

Monica Peppin

From: Dhugal Hanton <vertexresourcegroupusa@gmail.com>
Sent: Friday, June 3, 2022 8:18 AM
To: Enviro, OCD, EMNRD; CFO_Spill, BLM_NM
Cc: Raley, Jim; Monica Peppin
Subject: RDU 47 48 HR Notification Liner Inspection nAPP2213830227

All,

Please accept this email as 48-hr notification that Vertex Resource Services has scheduled a liner inspection to be conducted for the following release:

nAPP2213830227 DOR: 5/15/2022 Site Name: Ross Draw Unit #047H

This work will be completed on behalf of WPX Energy Permian, LLC

On Tuesday, June 7, 2022 at approximately 8:00 a.m., Lakin Pullman will be on site to conduct a liner inspection. He can be reached at 701-495-1722. If you need directions to the site, please do not hesitate to contact him. If you have any questions or concerns regarding this notification, please give me a call at 575-361-9880.

Thank you,

Monica Peppin
Project Manager

Vertex Resource Services Inc.
3101 Boyd Drive,
Carlsbad, NM 88220

P 575.725.5001 Ext. 711
C 575.361.9880
F

www.vertex.ca

Monica Peppin

From: Dhugal Hanton <vertexresourcegroupusa@gmail.com>
Sent: Thursday, June 16, 2022 8:23 AM
To: Enviro, OCD, EMNRD; CFO_Spill, BLM_NM
Cc: Raley, Jim; Monica Peppin
Subject: RDU 47 48-HR Notification Liner Inspection nAPP2213830227

All,

Please accept this email as 48-hr notification that Vertex Resource Services has scheduled a liner inspection to be conducted for the following release:

nAPP2213830227 DOR: 5/15/2022 Site Name: Ross Draw Unit #047H

This work will be completed on behalf of WPX Energy Permian, LLC

On Monday, June 20, 2022 at approximately 8:00 a.m., Jaime Balencia will be on site to conduct a liner inspection. He can be reached at 575-361-6453. If you need directions to the site, please do not hesitate to contact him. If you have any questions or concerns regarding this notification, please give me a call at 575-361-9880.

Thank you,

Monica Peppin
Project Manager

Vertex Resource Services Inc.
3101 Boyd Drive,
Carlsbad, NM 88220

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District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 123191

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 123191
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2213830227 ROSS DRAW UNIT #047H, thank you. This closure is approved.	7/18/2022